

ones from hand arms. That they have not been is the fault of sighting more than of any inherent variability in the trajectory of the heavy projectile. It is a mistake to imagine that because heavy guns are employed against large objects we may expect to attain them by a mere general direction. We cannot accomplish this end so easily, and even if we could we ought not to neglect accuracy, for now more than ever do we seek it, endeavoring as we do to make a few shots decisive.

An accurate sight has now, therefore, become a desideratum. The telescope naturally suggests itself, but it is objectionable both on account of its expense and its liability to get out of order. Its main advantage, that of magnifying, is in reality unimportant in artillery, as the ordinary eye is perfectly reliable within the limits of accurate cannon range. It is very different however with small arms, for these being used against comparatively small objects, the eye needs the assistance of a magnifier; consequently, for heavy guns, a cheaper, more substantial, and a more simple instrument is needed, and one which will at the same time be equally as accurate a collimator as the telescope.

In aiming we have two principal objects, to point and to elevate, i. e., to bring the axis of the gun into the proper plane of fire, and give to it a suitable elevation for the range required. Of these two, pointing is by far the most important, and by far the most difficult, because elevation is now reduced down to the mere use of a properly graduated arc. Pointing, however, is a problem as perpetually recurring as loading itself, and into this important practical question enter many side issues, based upon the various causes of aberration of flight, such as drift, influence of wind, inequality of platform, etc., and a suitable allowance must be made for each and all of them before we can, with any justice to the gun, expect to attain great accuracy of fire.

A sight should therefore be primarily a good pointer, i. e., it should possess the property of being quickly and accurately put in collimation with any required object. Again, owing to the fact above alluded to, that a projectile is not strictly obedient to a direct aim, the sight must possess another important feature, namely, that of being readily adjusted to the proper allowance for this variation whatever it may be.

At present we know of no such sight in any service; surely there is none in our own. In particular cases, such as the pendulum hausses for inequality of platforms, and the adjustable screw on the breech sight for drift, the attempt has been made to overcome some of these obstacles to an accurate aim, but no sight has attempted to combine them all, and every sight now used is objectionable on account of coarseness.

An instrument, however, called the "Collimating Sight," has lately been invented by Lieutenant Totten, of the Fourth Artillery, at the Artillery School, Fort Monroe, which, it is understood, combines all these valuable features, and bids fair to be a very handy military acquisition. It is principally intended for aiming heavy guns and mortars, but there are a great variety of important geometrical uses to which it can be put in what we may term battlefield surveying, which enhance its value to the practical soldier. Of the latter we may mention the valuable instrumental aid it affords in running right lines, setting out lines of works, trenches, etc., determining right angles, running perpendiculars, parallels,

offsets, verticals and horizontals, determining intersections, accessible or not; interpolating points, indicating differences of level, etc.

As a sight, it enables us to give a hair-line direction, and the proper elevation to the axis of the gun, making use at each successive shot of the actual line of metal, be it variable or not, and, moreover, it affords an easy means of correcting for the various aberrations of flight due to whatever cause. These corrections may be instantly made, and their need is as instantly indicated. This is all accomplished by a simple and very pretty combination of the spirit-level and an adjustable reflector. Its mode of employment is within the comprehension of and soldier, and its various uses may be accomplished with the greatest despatch. It combines at once all of the valuable features of an accurate collimator, a perfect breech sight, a gunner's level, a gunner's quadrant, a pendulum hausse, and, together with these, is useful as an instrumental aid in the ordinary field problems of practice.

The principles upon which the construction of this instrument is based are not stated as yet, but are understood to be of so simple a nature as to suggest their accuracy at once. As soon as the instrument shall have been submitted to an appropriate board, a more complete description of it will be furnished. H. C. M.

Tecumseh.

Yesterday an ubiquitous *Journal* reporter while in the discharge of his professional duties, happened on a venerable relic of humanity who had views. The old man's name is Daniel Boone Myers, he lives in Boone County, Indiana, and his views relate to the death of the late lamented Tecumseh. Mr. Myers had a long and somewhat eventful life. He was born in a block house in Nicholas County, Kentucky, in June, 1788, and is therefore weighted with the wisdom of eighty five years. His birthplace was but a few miles from Boone's station, and though the family left Kentucky for Missouri when he was a mere child, he remembers seeing the festive Daniel during one of the latter's visits to the dark and bloody ground. In 1811, being then a lusty youth of twenty-two, Mr. Myers made a pleasure trip to this State, passing through and spending a night at this point. The name of Indianapolis had not then been heard of and the brilliant career of the central city of the Meridian zone was shrouded in the dim and misty future. There was not a rod of Nicholson pavement here, nor any city council, nor a single gambling-house or liquor saloon. Even the old State house had not been built. The noble red man plied his vocation hereabouts, and the primeval forest which covered the present site of Indianapolis echoed to the mellifluous growl of the American black bear and the plaintive cooing of the hoot owl. Mr. Myers stopped at a log house near white river, which, though neither a gorgeous palace nor a cloud capped tower, was the best and only hotel here. Although a sharp young man for those times, he made no investments in real estate, an error he now regrets the more since he could probably have purchased any quantity of Washington street property with the proceeds of the horses he rode. But in one respect he was like Daniel Boone and Daniel Webster—his foresight was not as good as his hindsight. Besides, there were no real estate agents here at that time, and very little attention was paid to distinguished visitors.

Mr. Myers was in the war of 1812, having volunteered and served under Col. Richard M. Johnson, of Kentucky, better known in those days as Dick Johnson, afterward United States senator and Democratic candidate for vice president. Myers was corporal of a company under his command, and took part in the somewhat celebrated battle of the Thames, fought in Canada in October, 1812. It is a matter of history that in this battle the Indian chief, Tecumseh, who had received the rank of brigadier general from the British, commanded that portion of the British forces consisting of whites and Indians. Colonel Johnson commanded that portion of the American troops directly opposite to him. Mr. Myers says that prior to the battle his company, with one or two others, were sent forward to reconnoitre. This they did to their satisfaction and were able to report the exact position of the British and American troops. In due time the Americans moved on the enemy, and a very severe battle ensued. It is known that Tecumseh fought bravely, and that he fell while rushing ahead of his troops. We will give Myers' statement as nearly as possible in his own language:—"My company had been in the thickest of the fight, and the Indians had been driven back, when up rides Colonel Johnson with his sword in hand and his horse covered with sweat. Just then our Captain said, 'Give 'em another round, boys, and we blazed away. At that we saw an Indian, followed by few others, rushing straight at us. Some of the men who still had loads, fired, when the Indians all turned tail but one, and he kept ahead. I was standing less than twenty yards from Colonel Johnson. The Indian came rushing on like a crazy man, and when about ten rods from Col. Johnson took aim and fired at him. The ball went through the colonel's thigh and into his horse, which pitched around terribly. Quicker than lightning the Colonel jerked his pistol out of his holster and fired at the Indian, and shot him through the breast. He fell full length, and the men rushed up to see who it was. He was covered with shoulder straps and harness of all kinds, and a man named Ferguson, who knew Tecumseh like a book, told me it was as soon as he saw him. Afterwards some prisoner said so, and everybody admitted it. Our men cut nearly all the skin off his body for razor-strops. I sharpened my razor for years on a strop made out of Indian's hide." Mr. Myers' memory of the past events seems very clear, and from his testimony, we are inclined to accept the old song, "Rumsey dumpy, Col. Johnson killed Tecumseh."

Mr. Reed on the Navy.

Mr. E. J. Reed, M. P., the late Chief Constructor of the Navy, addressed his constituents in the Temperance Hall at Pembroke Dock, on Monday night. He said a close analysis of the Navy Estimates for the present year shows that our great Empire—with its twenty eight million tons of mercantile shipping leaving and entering its ports in one year; its £703,000,000 worth of import and exports; with £34,000,000 worth of ironclads in the hands of other Powers; and its own ironclad fleet needing great repairs—yet proposed to spend only £660,000 on new ironclads in 1874-75. Such a proposal was an abandonment of the position of the country in Europe, and he remonstrated to the best of his ability against it, Cabinets practically decided